

NOTE

First Record of the Raspberry Pest *Priophorus brullei* (Dahlbom) (Hymenoptera: Tenthredinidae: Nematinae: Cladiiini) in South America

Sawflies are economically important insects that include major agricultural, forest, and horticultural pests (Raffa and Wagner 1993). The family Tenthredinidae is the largest of the Symphyta, with approximately 5000 species worldwide. Throughout the Neotropical Region there are more than 400 species in about 32 genera (Smith 2003). The subfamily Nematinae is a diverse and widespread group, reaching its maximum diversity in arctic and subarctic Eurasia and North America, with more than 1000 species in 35 genera. In South America, however,

only two genera are known, *Pristiphora* Latreille with nine endemic species from México to Brazil and *Nematus* Panzer with a single introduced species in Argentina and Chile (Smith 2003). *Priophorus* Dahlbom was not known in South America at the time of Smith's (2003) treatment of Neotropical Nematinae.

We found and collected six adults and nine larvae of *Priophorus brullei* (Dahlbom) [= *Priophorus morio* (Lepeletier)] (Fig. 1) feeding on leaves of *Rubus idaeus* L. (var. Tulameen, which has one annual



Fig. 1. Adult female of *Priophorus brullei* from El Bolsón, Río Negro, Argentina.



Fig. 2. Area of study site in Argentina.

bloom) in a commercial planting in El Bolsón, Río Negro, Argentina (Fig. 2). This constitutes the first record of this crop pest for South America. There is also a record of this species feeding on raspberry (*Rubus* sp.) in Chile, Osorno, Jan/Feb 2002, E. Cisternas A. (Smith, unpublished). The collected individuals were identified by DRS and agree with the treatment of this species in the identification keys of Smith (1974) and Naumann et al. (2002). According to Smith (1974), the female of this species is recognized by the sheath that is broadened at its base in dorsal view (Smith 1974: fig. 11); the lancet with the annuli distinctly slanted (Smith 1974: fig. 14); an average length of 5.5 mm; the black coloration with brownish maxillary and labial palpi, the brownish to whitish tegulae, the entirely white extreme apex of each femur, tibia, and basitarsus; and the uniformly, lightly infuscated wings. Males are seldom found. Mature larvae are usually light green with three brown spots on the head and a broad, dorsal longitudinal brown stripe on the body and measure approximately 12 mm in length. Voucher specimens of *P.*

brullei from Argentina are deposited in the Museo de La Plata, La Plata, Argentina.

In Smith's (2003) key to the subfamilies of Neotropical Nematinae, *Priophorus* will run to couplet 3 from which it may be distinguished from the Selandriinae and other subfamilies leading to couplet 4 by the following characteristics of the forewing: vein 2r-m absent, base of Rs+M near Sc+R straight; vein 2A+3A complete, fused with 1A at center; veins M and 1m-cu divergent; and veins M and Rs+M meeting Sc+R at about the same point. The forewing venation can be compared with Fig. 1.

The source of introduction of *P. brullei* is unknown because of its widespread, Holarctic distribution. It was accidentally introduced in Australia and New Zealand (Callan 1978, Valentine and Walker 1991) and was intentionally introduced as a biological control agent for blackberry in Hawaii (Nakao 1967, Davis 1976).

The larvae feed on the undersides of the basal leaves of several species of *Rubus* spp. (raspberries) and *Sorbus* spp. (mountain ash) (Smith and Kido 1949, Bruzese 1980, Raspé et al. 2000), causing serious damage. In North America and Australia, the species reproduces by thelytokous parthenogenesis (Callan 1978) and has as many as three generations a year (Smith and Kido 1949, Smith 1974). The female oviposits in the leaf petioles or the tender bark of new shoots. Larvae consume the entire leaf tissue leaving circular holes between the veins. Mature larvae burrow into the soil or beneath or within ground litter and pupate within silken cocoons.

The reproductive strategy and number of generations per year are not known for populations found in southern South America. Further study is needed to monitor this raspberry pest and evaluate its economic impact in Argentina.

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